## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

## Listing of Claims:

(Currently Amended) A compound of formula I:

[wherein wherein B is a nucleobase selected from the group consisting of adenine, guanine, cytosine, wraeil and hypoxanthine] hypoxanthine.

(Currently Amended) A compound of formula II:

<u>(II)</u>

Docket No.: 3691-0115PUS1

wherein B wherein B is a nucleobase selected from the group consisting of adenine, guanine, cytosine, thymine, uracil and hypoxanthinel hypoxanthine.

3

(Currently Amended) A method for synthesizing a compound of formula I:

[wherein wherein B is a nucleobase selected from the group consisting of adenine, guanine, cytosine, uracil and hypoxanthine] hypoxanthine.

said method comprising reacting a compound of formula III:

[wherein wherein B is a nucleobase selected from the group consisting of adenine, guanine, cytosine, uraeil and hypoxanthine, and each of R<sub>2</sub> and R<sub>3</sub> is, independently a protecting group of a hydroxyl group group

with a compound of formula IV:

reacting the resulting intermediate with pyrophosphoric acid; and

conducting iodo-oxidation, hydrolysis and deprotection to obtain the compound of formula I.

4

Application No. 10/524,817 Docket No.: 3691-0115PUSI Response to Non-Final Office Action Reply to Office Action of June 7, 2007

4. (Currently Amended) A method for synthesizing a compound of formula II:

[wherein wherein B is a nucleobase selected from the group consisting of adenine, guanine, cytosine, thymine, uracil and hypexanthine] hypexanthine,

said method comprising reacting a compound of formula V:

[wherein wherein B is a nucleobase selected from the group consisting of adenine, guanine, cytosine, thymine, uracil and hypoxanthine, and R<sub>2</sub> is a protecting group of a hydroxyl group group

with a compound of formula IV:

reacting the resulting intermediate with pyrophosphoric acid; and

conducting iodo-oxidation, hydrolysis and deprotection to obtain the compound of formula II.

Docket No : 3691-0115PUS1

 (Currently Amended) A process for producing an oligonucleotide containing at least one nucleoside unit of formula VI:

(VI)

[wherein wherein B is a nucleobase selected from the group consisting of adenine, guanine, cytosine, uraeil and hypoxanthine] hypoxanthine,

comprising: conducting RNA chain elongation reaction with RNA synthetase in the presence of the compound of claim 1 or the compound produced by the method according to claim 3.

 (Currently Amended) A process for producing an oligonucleotide containing at least one nucleotide unit of formula VII:

(VII)

[wherein wherein B is a nucleobase selected from the group consisting of adenine, guanine, cytosine, thymine, uraeil and hypoxanthine] hypoxanthine,

comprising: conducting DNA chain elongation reaction with DNA synthetase in the presence of the compound of claim 2 or the compound produced by the method according to claim 4.